UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/053,650	04/02/1998	KWANG CHEOL JOO	03586.0013	1592

22852   7590   08/27/2007
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EXAMINER
BROWN, RUEBEN M

ART UNIT	PAPER NUMBER
2623	

MAIL DATE	DELIVERY MODE
08/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/053,650	JOO ET AL.
	Examiner	Art Unit	
	Reuben M. Brown	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27,28,32-42 and 46-52* is/are pending in the application.

    4a) Of the above claim(s) *33-41, 47-52* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-28,32,42 & 46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 2/28/07 have been fully considered but they are not moot, in view of the new grounds of rejection. Applicant argue on page 10 that, "nowhere does Metz teach or suggest that checksum value is calculated and stored in ROM 115 or that a checksum value is the same as a bit pattern code". While examiner does agree that Metz does not state that the checksum value is "calculated", the reference explicitly states that the checksum procedure is undertaken by the microprocessor 105. By definition the checksum operation requires adding up a string of values associated with the downloaded operating system and comparing that sum (i.e., checking..the..sum) against some known value, generally already locally found (i.e., stored) in the terminal.

        Britt is now relied upon to teach the claimed feature of, 'storing a predetermined number when the download procedure was suspended due to a power failure or signal transmission error'.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 27-28, 32, 42 & 46 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Metz, (U.S. Pat # 5,666,293), in view of Britt, (U.S. Pat # 6,230,319).

        Considering claim 27, the claimed downloading apparatus for a broadcast receiver,

comprising:

        'receiver which receives a broadcast signal having a program signal and control

information signal'; col. 6, lines 50-65; col. 7, lines 62-67 thru col. 8, lines 1-2 & Fig. 1 teach a

STT 100, including a DET 102 that receives video programs and operating system software,

which reads on a 'control information signal'.

        'storage element which stores a control program, such that the control program controls

the operation of a video program corresponding to the video program'; reads on the DET storing

the operating system for the STT, which defines the basic operations of the STT 100, col. 8, lines

9-34.

'storage element further comprising RAM for temporarily storing the downloaded control

program', met by col. 10, lines 1-9 & col. 17, lines 45-56, newly extracted operating system is

stored in RAM 122.

'non volatile RAM, including a second domain for storing a control program', reads on

Metz, (col. 8, lines 9-25; col. 10, lines 1-15; col. 20, lines 44-62), which teaches that the

operating system and the operating system upgrade routine may be stored in NVRAM 121.

'non-volatile RAM, including a first domain that stores a version number of the control

program stored in the second domain, when the control program is valid', reads on the above

discussion that the operating system (which necessarily includes its version number) and the

operating system upgrade routine are both stored in NVRAM 121, also col. 36, lines 25-55.

As for the, 'non-volatile RAM including a first domain that stores predetermined number

indicating that the downloaded procedure was suspended due to a power failure or transmission

error'; Metz teaches that the DET uses checksum procedure to determine if there are any errors

in the downloaded operating system, col. 37, lines 44-67 thru col. 38, lines 1-40 & Fig. 9.

However, Metz does not explicitly state that the checksum value is stored in the flash memory.

Nevertheless Britt, which is in the same field of endeavor, teaches that when there is power

outage during the downloading of application programming, that a No PWR flag is set, which

indicates to the upgrade routine that downloading of the instant application program was

incomplete, see (Fig. 15; col. 11, lines 35-67 thru col. 12, lines 1-35). Britt goes on to disclose

that in this instance, a field NUM...BLOCKS is provided in the flash memory 22b, which

indicates the number of blocks that were written into the flash memory so far, which reads on the

claimed language. It would have been obvious for one of ordinary skill in the art at the time the

invention was made, to modify Metz with the disclosure of storing a value in flash memory when

there is a loss of power, at least for the added benefit of explicitly indicating that such a loss of

power has taken place, as taught by Britt, (Abstract; col. 2, lines 1-38; col. 3, lines 1-20).

'initial boot routine includes checking whether or not a value stored in the first domain is

the predetermined number and if so, automatically updating the control program', is provided for

by the combination of Metz disclosing that the version number of an incoming operating system

is checked against the current operating system and if the numbers do not match, then the

incoming versions is extracted, col. 10, lines 1-9 & col. 17, lines 45-56. Metz also teaches that in

an initial boot routine, the system can check for faults in the software programs or in the DET

102, (col. 22, lines 25-45) and Britt teaching that there is specific field (NUM...BLOCKS), left

in the flash memory 22b, when a power failure takes place during the downloading of an

application program, which results in the interruption of the downloading of the instant

application program.

'microcontroller that replaces the control program stored in the second domain

temporarily stored in RAM based on the control information and the version number of eth

control program', reads on operation of the microprocessor 110, in Metz col. 36, lines 54-67; col.

38, lines 1-55.

Considering claim 28, wherein the broadcast signal includes a PID in order to identify the

type of information of the broadcast signal, Metz teaches such a feature, col. 36, lines 54-56.

Considering claim 32, the claimed signal processor for separating the control information

signal from the broadcast signal reads on the disclosure of Metz, which teaches extracting the

download program from the transmission stream, col. 10, lines 1-5.

Considering claim 42, the claimed method steps for downloading a control program from

a broadcast signal in a digital receiver, corresponds with subject matter mentioned above in the

rejection of claim 27, and is likewise treated.

Considering claim 46, Metz teaches that the operating system, which necessarily includes

its version number, is stored in non-volatile RAM, col. 17, lines 40-45 & col. 18, lines 1-10,

which reads on the claimed subject matter.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

A)   Lee   Generic teaching of using checksum procedure to test the whether

downloaded data has an error.

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Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

or faxed to:
(571) 273-8300, (for formal communications intended for entry)
Or:

(571) 273-7290 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F(8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Reuben M. Brown